



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/008,482	11/13/2001	Richard N. Zare	M-11147-1C US	5979

36257 7590 04/29/2003

PARSONS HSUE & DE RUNTZ LLP  
655 MONTGOMERY STREET  
SUITE 1800  
SAN FRANCISCO, CA 94111

EXAMINER

THERKORN, ERNEST G

ART UNIT

PAPER NUMBER

1723

DATE MAILED: 04/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/008,482

Applicant(s)

ZARE

Examiner

THERKORN

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on April 10, 2003
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above, claim(s) 1-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 5 6) ☐ Other: \_\_\_\_\_

Art Unit: 1723

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dulay (Anal. Chem., 70, 1998 pages 5103-5107) in view of Viklund (Chem. Mater. 1997, 9, 463-471). The claims differ from Dulay (Anal. Chem., 70, 1998 pages 5103-5107) in reciting photoinitiated polymerization. Viklund (Chem. Mater. 1997, 9, 463-471) (Abstract) discloses that the advantages of photoinitiated polymerization are ease of preparation, short time needed for reaction, and the possibility of running the reaction at a low temperature. It would have been obvious to use photoinitiated polymerization in Dulay (Anal. Chem., 70, 1998 pages 5103-5107) because Viklund (Chem. Mater. 1997, 9, 463-471) (Abstract) discloses that the advantages of

Art Unit: 1723

photoinitiated polymerization are ease of preparation, short time needed for reaction, and the possibility of running the reaction at a low temperature.

Claims 11-13 are rejected under 35 U.S.C. 102(B) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Soane (U.S. Patent No. 5,135,627). The claims are considered to read on Soane (U.S. Patent No. 5,135,627). However, if a difference exists between the claims and Soane (U.S. Patent No. 5,135,627), it would reside in optimizing the elements of Soane (U.S. Patent No. 5,135,627). It would have been obvious to optimize the elements of Soane (U.S. Patent No. 5,135,627) to enhance separation.

Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soane (U.S. Patent No. 5,135,627) in view of Viklund (Chem. Mater. 1997, 9, 463-471). At best, the claims differ from Soane (U.S. Patent No. 5,135,627) in reciting photoinitiated polymerization. Soane (U.S. Patent No. 5,135,627) itself discloses "UV-induced decomposition initiator" on column 5, lines 10-12. Viklund (Chem. Mater. 1997, 9, 463-471) (Abstract) discloses that the advantages of photoinitiated polymerization are ease of preparation, short time needed for reaction, and the possibility of running the reaction at a low temperature. It would have been obvious to use photoinitiated polymerization in Soane (U.S. Patent No. 5,135,627) because Viklund (Chem. Mater. 1997, 9, 463-471) (Abstract) discloses that the advantages of photoinitiated polymerization are ease of preparation, short time needed for reaction, and the possibility of running the reaction at a low temperature.

Art Unit: 1723

Claims 11-13 are rejected under 35 U.S.C. 102(A) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Yu (Electrophoresis 2000, 21, 120-127 January 18, 2000). The claims are considered to read on Yu (Electrophoresis 2000, 21, 120-127 January 18, 2000). However, if a difference exists between the claims and Yu (Electrophoresis 2000, 21, 120-127 January 18, 2000), it would reside in optimizing the elements of Yu (Electrophoresis 2000, 21, 120-127 January 18, 2000). It would have been obvious to optimize the elements of Yu (Electrophoresis 2000, 21, 120-127 January 18, 2000) to enhance separation.

Claim 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over each of Dulay (Anal. Chem., 70, 1998 pages 5103-5107) in view of Viklund (Chem. Mater. 1997, 9, 463-471), Soane (U.S. Patent No. 5,135,627), Soane (U.S. Patent No. 5,135,627) in view of Viklund (Chem. Mater. 1997, 9, 463-471), and Yu (Electrophoresis 2000, 21, 120-127 January 18, 2000) as applied to claims 11-13 above, and further in view of either Najafabadi (U.S. Patent No. 5,938,919) or Bente (U.S. Patent No. 4,293,415). At best, the claims differ from each of Dulay (Anal. Chem., 70, 1998 pages 5103-5107) in view of Viklund (Chem. Mater. 1997, 9, 463-471), Soane (U.S. Patent No. 5,135,627), Soane (U.S. Patent No. 5,135,627) in view of Viklund (Chem. Mater. 1997, 9, 463-471), and Yu (Electrophoresis 2000, 21, 120-127 January 18, 2000) in reciting use of a polyimide coating. Dulay (Anal. Chem., 70, 1998 pages 5103-5107) (in the sentence bridging pages 5104 and 5105), Soane (U.S. Patent No. 5,135,627) (column 2, lines 28-30), and Yu (Electrophoresis 2000, 21, 120-127 January 18, 2000) (in section 2.1) would appear to disclose the recited coating. In any event, Najafabadi (U.S. Patent No. 5,938,919) (column 7,

Art Unit: 1723

lines 29-32) discloses that a polyimide coating aids in the prevention of breaking. Bente (U.S. Patent No. 4,293,415) (Abstract and column 3, line 64) disclose that polyimide coatings protect against abrasion and moisture. It would have been obvious to use a polyimide coating in each of Dulay (Anal. Chem., 70, 1998 pages 5103-5107) in view of Viklund (Chem. Mater. 1997, 9, 463-471), Soane (U.S. Patent No. 5,135,627), Soane (U.S. Patent No. 5,135,627) in view of Viklund (Chem. Mater. 1997, 9, 463-471), and Yu (Electrophoresis 2000, 21, 120-127 January 18, 2000) either because Najafabadi (U.S. Patent No. 5,938,919) (column 7, lines 29-32) discloses that a polyimide coating aids in the prevention of breaking or because Bente (U.S. Patent No. 4,293,415) (Abstract and column 3, line 64) disclose that polyimide coatings protect against abrasion and moisture.

The remarks urge that the election of species should be withdrawn because examining the two inventions would not be a burden on the examiner. However, examining two inventions would require additional searching and consideration of different issues of patentability. This is especially true where U.S. Patent No. 6,136,187 on column 1, lines 43-50 discloses use of a medium of particles and matrix allows for the elimination of a frit. The election of species requirement has been reconsidered, deemed proper, and made final.

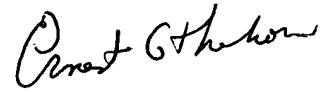
Any inquiry concerning this communication should be directed to E. Therkorn at

Application/Control Number: 10/008,482

Page 6

Art Unit: 1723

telephone number (703) 308-0362.



**Ernest G. Therkorn**  
**Primary Examiner**  
**Art Unit 1723**

EGT/12  
April 17, 2003